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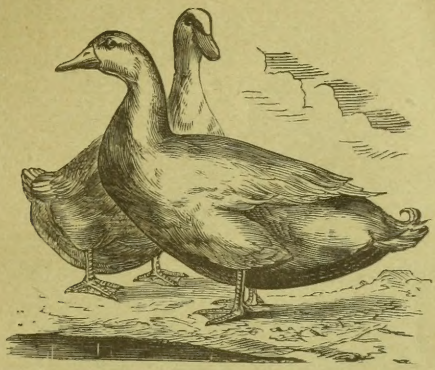

DUCKS, GEESE AND SWANS.

HOW TO REAR AND MANAGE THEM.

By H. H. STODDARD,

EDITOR OF "THE POULTRY WORLD," "THE AMERICAN POULTRY YARD," AND "THE CO-OPERATIVE POULTRY POST." AUTHOR OF "AN EGG FARM," "POULTRY DISEASES," "POULTRY ARCHITECTURE," "LIGHT BRAHMAS," "WHITE LEGHORNS," "BROWN LEGHORNS," "PLYMOUTH ROCKS," "WYANDOTTES," "INCUBATION; NATURAL AND ARTIFICIAL," "HOW TO FEED FOWLS," "HOW TO WIN POULTRY PRIZES," "HOW TO PRESERVE EGGS," ETC. PUBLISHER OF "HOW TO RAISE POULTRY ON A LARGE SCALE," "A POULTRY COMPENDIUM," ETC.

HARTFORD, CONN.
1885.

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DOMESTIC WATER FOWL.

DUCKS.

THE breeding of ducks for market purposes pays well, where there are suitable facilities at hand for prosecuting it, for there is always a good demand for both the flesh and the eggs. Generally in winter and spring ducks sell considerably higher than chickens, pound for pound, and the price of duck eggs is often higher than that of the choicest hens' eggs. Under favorable conditions, ducks are splendid layers, and during the height of the laying season will average nearly an egg a day for the entire flock for several weeks, so that there is no question but that duck breeding will pay when conducted properly. Those who have not made a trial of this kind of poultry, and are situated to do it properly, should at least experiment in this direction.

Ducks are, as a rule, freer from attacks of disease and disorders than any other breed of fowls, but they must have plenty of room and sufficient water. They do not do well in confinement, though they must, during the laying season, be confined in their pens until they have laid their eggs, else they will drop them around promiscuously, wherever the desire seizes them,

and thus many will fall to the lot of crows and skunks and other marauders. They will generally lay by or before ten o'clock each morning, when they can be given their liberty for the remainder of the day. By giving them a generous supply of food each evening, the flock will be sure to come home promptly at eve, when they can be penned up until after they have shelled out their eggs next morning.

A river or larger stream is objectionable rather than otherwise, and more success will be had by restricting their water privileges to a small and good stream. We know of one breeder who annually rears two or three hundred ducks, who utilizes a stream not larger than would readily flow through a four-inch pipe; by damming up the stream here and there he secures basins for them to bathe in. The brackish water near the sea coast where small creeks empty affords an excellent feeding place for ducks.

Fanny Field gives some very good hints, rules and opinions about ducks and ducklings in the *Prairie Farmer*, from which we extract the following:

"Every farmer who has a pond or stream of water on his premises should keep a few pairs of ducks, at least. As a rule, where there is any market within a reasonable distance of the farm, ducks and ducklings may be profitably reared. Young ducks, in good condition, always command a good price in city markets, their feathers sell at a good price, and the eggs for cooking, and a roast duck occasionally, make tempting additions to the farmer's table. A good many farmers, who live too far from market to render it profitable to raise ducks

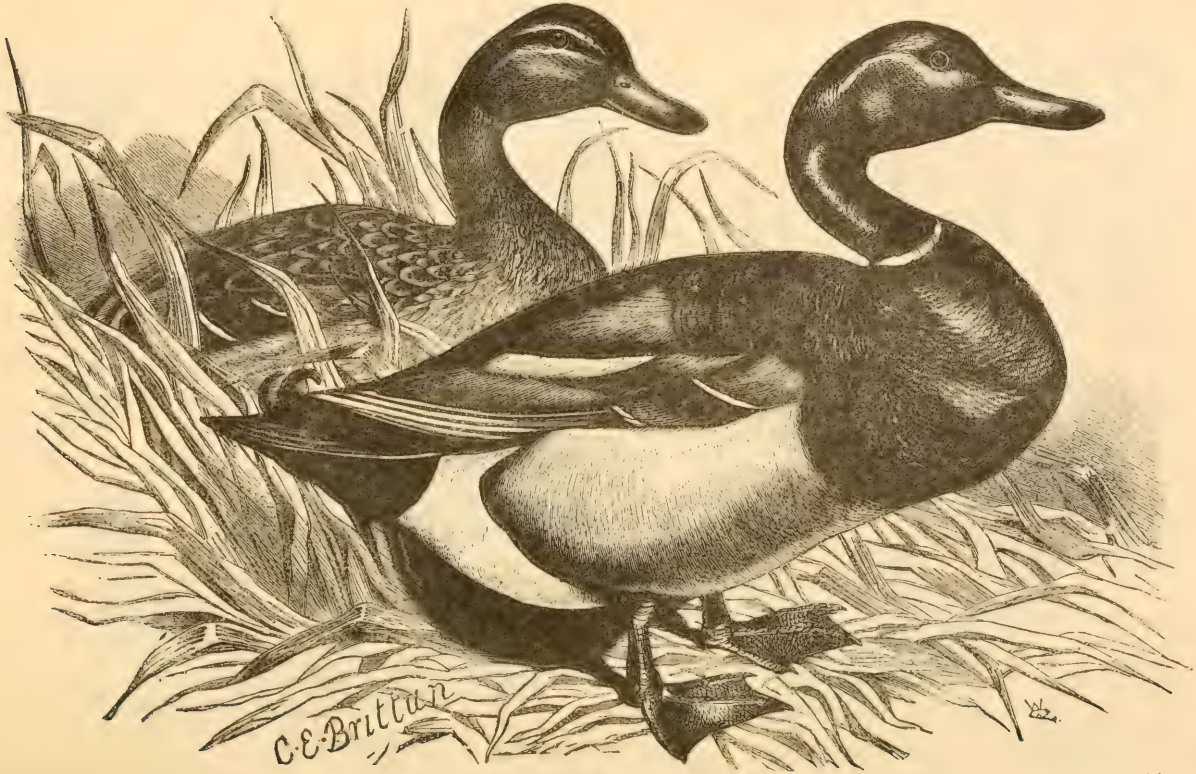
for sale, would find that it would pay to raise them for feathers, and for meat for their own tables. Where one is blessed with a family of children the entire charge of a flock of ducks might be given over to the little folks, and they would take an infinite amount of pleasure in caring for the ducklings, collecting the eggs, feeding the old ducks, and watching their antics in the water. And then your little folks would be learning something all the time, and take my word for it, that there is nothing so good for children as to give them something to care for—to have them feel a sense of responsibility.

"For a small flock a rail pen may be constructed and covered with boards. Have one side higher than the other, so that the board roof will shed rain. I have a good-sized yard near the water, surrounded by a picket fence, and with a long, low shed across the north side. Nests are placed along the back side of the shed, and the floor is well covered with dry gravel and earth, which keeps the floor free from filth. This spring I intend to extend the fence, so as to inclose a portion of the stream, and put in water gates, so that there will always be plenty of water in the yards at all times. Of course, the ducks are only confined in the yard at night, but I find that in winter and during the cold rains of early spring and late fall they spend a good deal of the time under the shed.

"As ducks frequently lay for two or three months before they take a notion to rear a family, it is necessary, especially when one wishes to raise a large number of ducks, to set some of the first laid eggs under hens. The directions given for preparing nests and set-

ting hens must be attended to when setting a hen on ducks' eggs. Do not crowd the nest; five ducks' eggs are enough for a small hen, and seven or eight for a Brahma or Cochin. Unless the eggs are set on the ground, particular attention must be paid to the sprinkling with tepid water during the last two weeks of incubation. Sprinkle slightly every day while the hen is off for food. Neglect this and your chances for ducklings will be greatly lessened. Ducks' eggs usually hatch well. With fresh eggs that have not been chilled, and have been carefully handled, you may count on ducklings at the rate of ninety for every hundred eggs set. I don't think it pays to hatch ducklings very early in the season, unless one wishes to raise some extra large birds for exhibition. Ducklings grow rapidly, and if hatched in April and May will grow to a good size for the winter market. Feed young ducklings on the same things and in the same way that you would feed young chickens. Feed ducks as fowls are fed.

"The proper time for picking ducks may be ascertained by catching two or three of your flock and pulling out a few feathers here and there; if they pull hard and the quills are filled with bloody fluid, the feathers are not 'ripe,' and must be left a while longer; but if they come out easily, and the quills are clear, the feathers are called 'ripe,' and the birds should be picked at once, or they will lose the greater part of their feathers. To pick a duck before the feathers are fully ripe is to injure the bird very much; you will find a bunch of very long, rather coarse feathers under each wing; do not pluck them, they support the wings. When



MALLARD DUCK AND DRAKE.

picking take but few feathers at a time between the thumb and forefinger, and give a short, quick jerk downward."

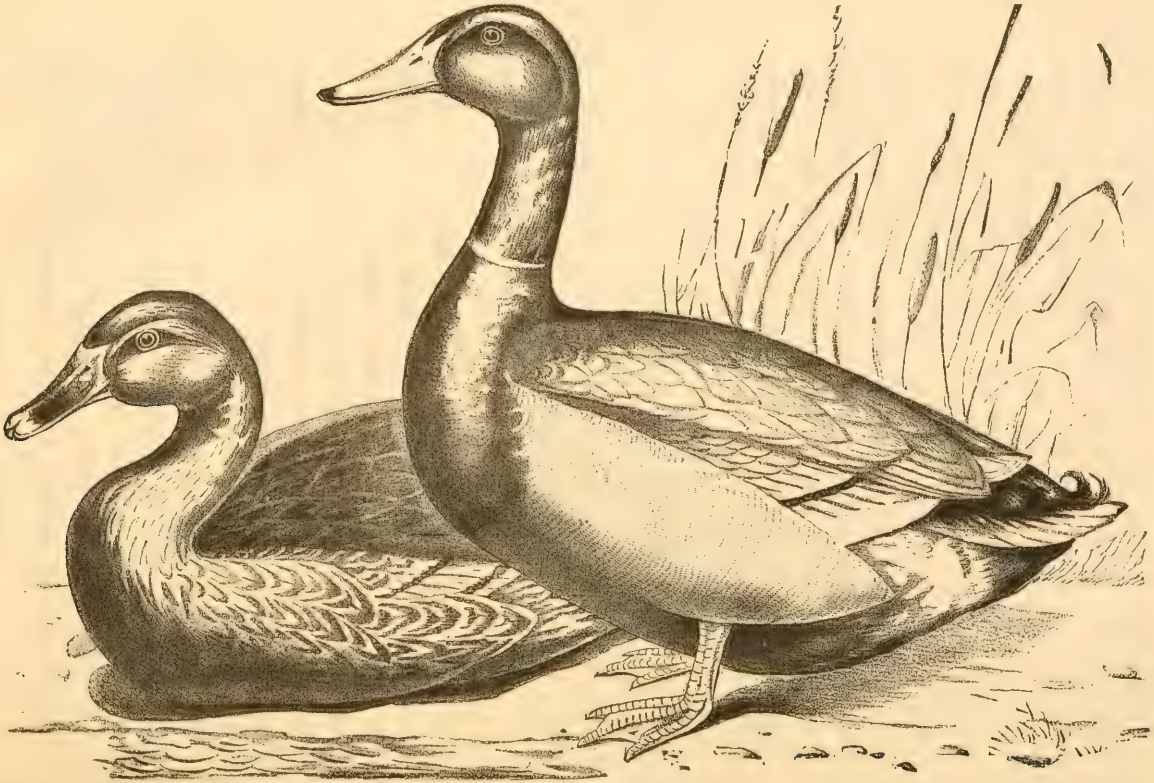
MALLARD DUCKS.

The wild Mallard is found in all countries in the north temperate zone, and is undoubtedly the progenitor of all our domestic breeds having the recurved feather in the tail of the drake, a feature that is not found in other wild varieties besides the Mallard. Moreover, this breed of wild ducks comes easily under domestication, and is susceptible of marked variation in size and color when for a few generations in that condition.

The origin of the domestic from this wild species is recognized in several of the languages of Europe, the same name being given to both. Besides this, when either the Pekins, Rouens, Cayugas, or Aylesburys are crossed with the wild Mallards, the offspring are not sterile "mules," but perfectly fertile, which fact indicates that the Mallards are the original wild species.

It is interesting to many persons to know from what wild species our domestic fowls were derived. Such evidence as we have advanced is the most reliable, for certain peculiarities, as the recurved tail-feather of the drake, serve as a brand for ages.

There is no species of wild duck or goose that may not be reared in captivity and half-tamed with ease. Thorough domestication is, however, a work of time, and persistent efforts must be made through generations. till the sense of familiarity with man becomes hereditary, and the weight of the birds acquired through profuse feed-



ROUEN DUCK AND DRAKE.

ing, and the weakness of wing caused by disuse, make them incapable of prolonged flight.

There is much uncertainty and obscurity in the genealogy of even *man,* the writer of history. But there is strong evidence that even the most civilized people had ancestors in a "wild state;" forefathers that would not, if pictured, excite ancestral pride. So in the case of animals we only mention indications. The history of the origin, not only of nearly all the various species of our domestic animals, but also of most varieties into which they are divided, is extremely obscure, or wanting altogether. The origin of the

ROUEN DUCK,

one of the most valuable and most widely disseminated of the class, is, however, quite certain. The French city, whose name the variety bears, and the district adjoining, had but little, comparatively, to do with its "make up;" but the combined labors of breeders in France and England evolved in the process of time, from the common domestic ducks, by selection on the basis of size, the plump, massive breed or variety to which some chance incident gave the appellation of Rouen. A parallel case is shown in the naming of the Hamburg fowl.

The fine, close plumage, the "beauty spots" upon the wing of the Rouen drake, the delicate pencilings upon his sides, the rich chestnut of his breast, and the black with green and blue reflections of his head, are almost exactly such as may be seen in his cousin, the common barn-yard drake. The art of the breeder has not produced this arrangement of tints, or modified it

essentially. The Rouen inherited it from the common domestic stock, who in turn derived it from their wild ancestors, the free, untamed denizens of stream, lake and fen, over the whole of the temperate regions, and a part of the tropical and arctic, throughout the entire northern hemisphere.

The body of the Rouen is larger than that of the common duck, some specimens attaining great weight. Some pairs have been exhibited weighing thirty pounds. Thus we see how lightness of body and gracefulness of the wild species has been changed, owing to the influence of domestication, the effects of plentiful feed and easy life. The wild bird has a habit of activity and takes long flights, and has comparatively light weight, without much variation.

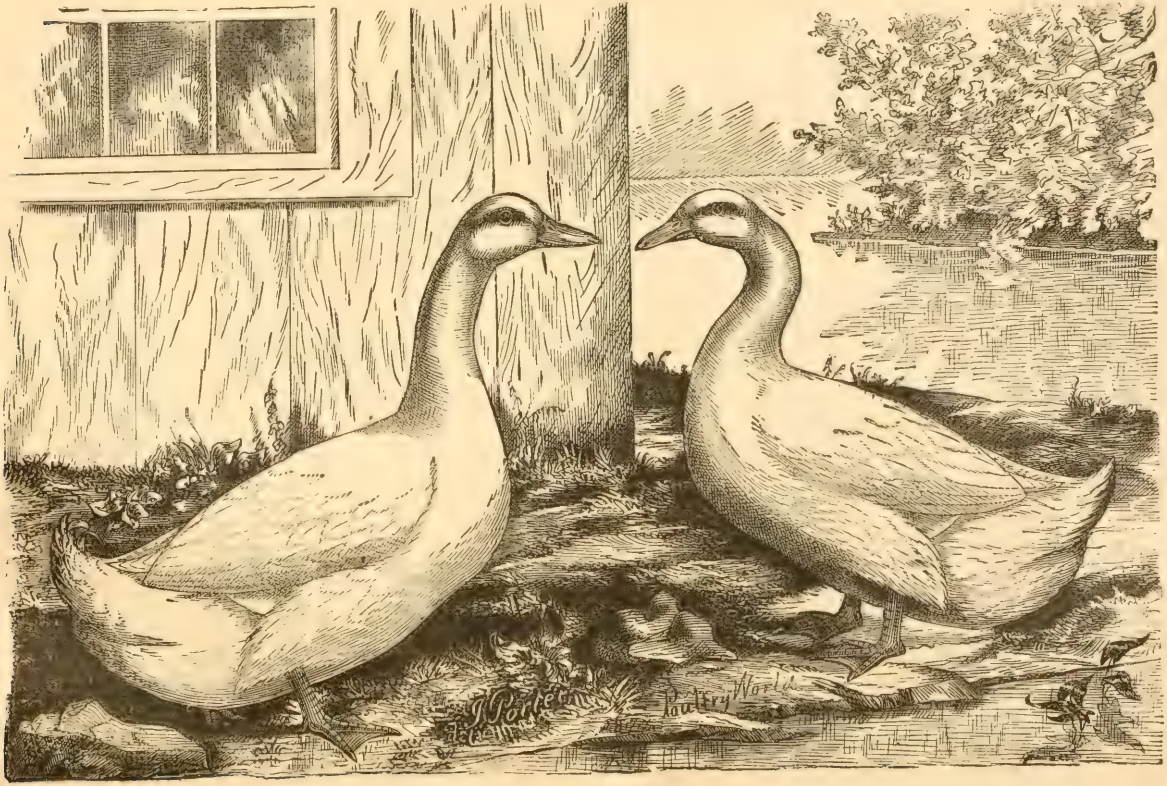
The Rouen drake has lustrous green plumage on head and neck, the lower part of the latter having a distinct white ring, but not quite uniting at the back. The breast is dark, or purplish-brown, and the wings show colors of brown, purple and green, which do not fail to excite the admiration of the beholder. The duck has a less gorgeous dress of brown, penciled with darker brown, the wings having bars of purple, edged with white. Both sexes generally breed true to color. Probably the exact similarity of plumage, which has been preserved during improvement in size, like that of the common and wild varieties, is the result of man's selection. There was a beautiful pattern in the beginning, a *Standard* that nature gave, and man could do no better in colors than that. He selected for white and obtained the Aylesbury and the Pekin, and as far as plumage

is concerned these varieties are admired "because they look so pure and so clean."

PEKIN DUCKS

were first imported from China by Mr. J. E. Palmer, of Stonington, Conn., in the spring of 1873. They were at first mistaken for small-sized geese. They have long bodies, quite long necks, and carry their tails erect when startled. A large number were brought on shipboard, mostly young birds, but only a very few survived the passage. The importer saved a drake and three ducks. They are, without doubt, a larger bird than the Rouen, and for their beauty and size a great acquisition to our poultry stock. The bill is yellow, and the legs are a reddish or orange-yellow. The wings are short, and as they cannot fly well, it is quite easy to keep them in small inclosures. They are very prolific. Two of the ducks of the first importation laid nearly one hundred and twenty eggs each from the last of March to about the first of August.

Pekin Ducks have taken their proper place in the list of domestic fowls, and are rightly esteemed for their size and white plumage. Having been rapidly disseminated through the country since the first importation, they have had a trial in the North and South, East and West. The trial has, no doubt, been a very unfair one in many instances. This new breed has been thoughtlessly subjected to all the disadvantages of incest. Men have bought pairs, perhaps brother and sister, and bred them closely in successive years, the stock diminishing in size and vigor, till Pekins were banished as de-



PEKIN DUCK AND DRAKE.

generate and inferior. We say this to explain the fact that Pekin ducks do not all present the fine appearance of those exhibited by Mr. J. E. Palmer in 1874. Those breeders who have taken pains to cross with birds from a later importation, have fine success in maintaining size, and their birds are strong. The small wings of this variety of water fowl attest the great length of time since domestication. Thousands of years have passed, and the descendants of the wild Mallard of Asia became uniformly white, nearly, and the wings, through disuse. so small that flight is an impossibility. It is not eas, to determine how long this process has been going on, but it is interesting to observe that our largest breeds of fowls, having comparatively the smallest wings, come from that quarter of the globe where, probably, man has longest dwelt and exercised dominion over the beasts of the field and the fowls of the air.

Mr. G. P. Anthony, of Westerly, R. I., writes of Pekins as follows:

"The ducks are white, with a yellowish tinge to the under part of the feathers; their wings are a little less than medium length, as compared with other varieties, making as little effort to fly as the large Asiatic fowls, and they can be as easily kept in inclosures. Their beaks are yellow, their necks long, their legs short and red. When the eggs are hatched under hens, the ducklings come out of the shell much stronger, if the eggs are dampened every day—after the first fifteen days—in water a little above blood heat, and replaced under the hen. The ducks are very large and uniform in size, weighing at four months old about twelve pounds to the

pair. They appear to be very hardy, not minding severe weather. Water to drink seems to be all they require to bring them to perfect development. I was more successful in rearing them with only a shallow dish filled to the depth of one inch with water than those which had the advantages of pond and running stream."

Of the second importation of Pekin Ducks by Mr. Palmer, Rev. W. Clift writes:

"They were brought down from Pekin to the coast by Major Ashley and put on board the vessel. The mortality among the ducks was much greater on their journey in China than on shipboard. They came through the long voyage in safety, and only one, a drake, died after landing. They were in thin condition, but rapidly recruited, and after a few days began to lay. As they had laid a good many eggs on their passage, for the benefit of the cook, it was not expected that they would lay the usual number of eggs, but their performance was very satisfactory in this respect. The drake which leads the flock is a very large bird, with bone enough to carry ten pounds. The largest duck weighs eight pounds, seven ounces, and a second duck is nearly as heavy. These weights are larger than any that the first importation attained during the first season, though they have been exceeded since. It is one of the good points of these birds that they improve in weight after they become acclimated, and there is a steady gain up to the third generation. This importation from the best stock in China, carefully selected by Major Ashley, is likely to have an important influence upon the breed in this country.

"There is much danger of deterioration from in-and-in breeding, and our best breeders are careful to avoid it. It will now be in the power of all breeders of Pekins to get new blood into their flocks at small expense. Drakes of the second importation, bred with ducks of the first, or the equivalent breeding in the other direction, will probably give the best results attainable.

"Mr. Palmer's facilities for breeding ducks are unsurpassed. His place is located immediately upon a salt water cove, fed by a mill stream, and the ducks have free access to the endless variety of salt water food which every tide brings in, as well as the run of a large meadow, where grasses and insects abound. It is fortunate for the reputation of the breed that all these natural facilities are united with skillful management at headquarters."

In the future much will depend upon judicious management in breeding Pekin ducks. Breeders have ascertained by experience that repeated in-breeding brings deterioration; and if large size, the desirable quality, is to be attained, there must be selection of the largest specimens for breeding, not near akin. This is a very old breed of ducks in a comparatively new country. In the East, both land and water fowls have been domesticated for an immense period of time, and large breeds have been slowly developed. A Chinese Encyclopedia, published in 1609, but compiled from documents still older, states that fowls were kept in China over three thousand years ago.

WHITE-CRESTED DUCKS.

This variety has very much the same characteristics

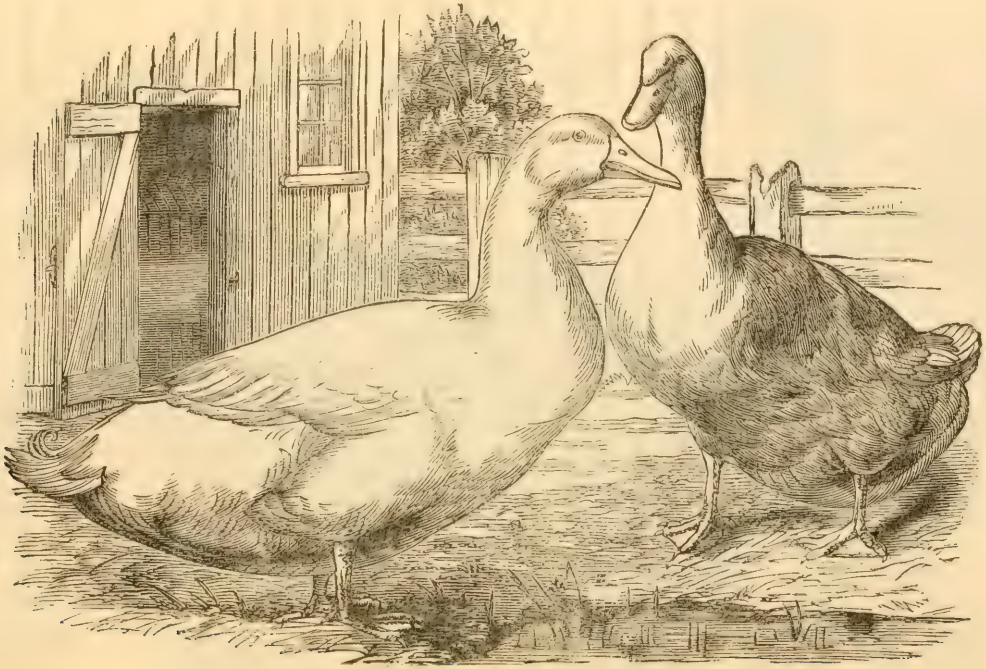
WHITE-CRESTED DUCK AND DRAKE.

as the Pekins. They are pure white in color, and are very graceful birds. This latter merit is owing a great deal to the crest, which the *American Standard* says should be "large, and well balanced on the top of the head—color, pure white." The bill is not large, being of a yellow color. The shanks are a light orange.

AYLESBURY DUCKS

take their name from the town in England where they have been bred from time immemorial as a market fowl. In that place and vicinity they are produced in large numbers, mostly by poor people, who find a market for the birds, when they are about six weeks old, in London. These sales in the aggregate for one year amount to £20,000—a very handsome sum—furnishing for some families all the means of support. The ducklings intended for the early market are never permitted to go into water; are fed at first on hard-boiled eggs chopped fine and mixed with boiled rice; then, as they get older, barley meal and tallow scraps are used.

The Aylesburys are white as the driven snow, their legs orange color, bill of a pinkish or flesh color. The drakes differ not from the ducks in appearance, except as they show the curled feather in the tail. The eyes should be deep leaden blue. The weight of the Aylesbury drake, when raised to perfection, is about nine pounds, and that of the duck eight pounds. In this country this breed of ducks has been very generally disseminated, and before the introduction of the Pekins was *the* white duck; and now there are many breeders who prefer the Aylesbury ducks on account of their



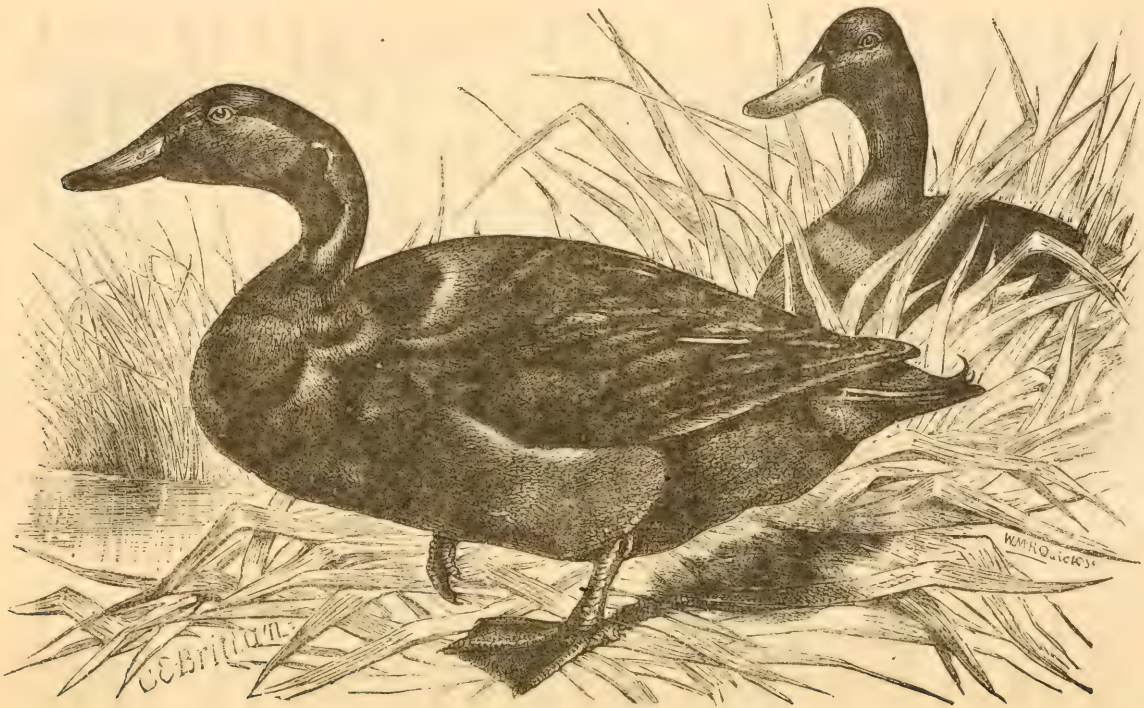
AYLESBURY DUCK AND DRAKE.

compact form, and their early maturity or fitness for market. There is a breed of ducks that has received attention from American fanciers, and is worthy of yet more. We quote from Mr. Clift:

THE CAYUGA DUCK.

"The Cayuga is as much an American breed as the Aylesbury is English or the Rouen is French, and it ought to receive much more attention from our fancy breeders. It has not been very extensively propagated until within a few years, and is now a rare bird in the farm-yards of our country. It is as easily raised as the common Mallard, and with careful breeding for a few generations may be brought up to the weight of the Rouen. It is said to have originated on the shores of Cayuga lake, and to be a cross of the wild black duck upon the common Mallard. However that may be, it has been long enough propagated to have very distinct qualities, and is properly called a breed. 'The head is small, neat and slender; the bill broad, rather short and dark in color; neck medium; breast broad, full and prominent; body long and round, very full and plump; wings long and carried well up; legs medium in length, and black or a dark slate color; plumage of drake of a glossy black throughout; the head and neck of a brilliant greenish hue; also, the wing coverts, but not so decided in color, the primaries of the duck sometimes being of a dark brown, all the rest is a jet black; a few flashes of white in the breast of the duck objectionable, but not a disqualification.'

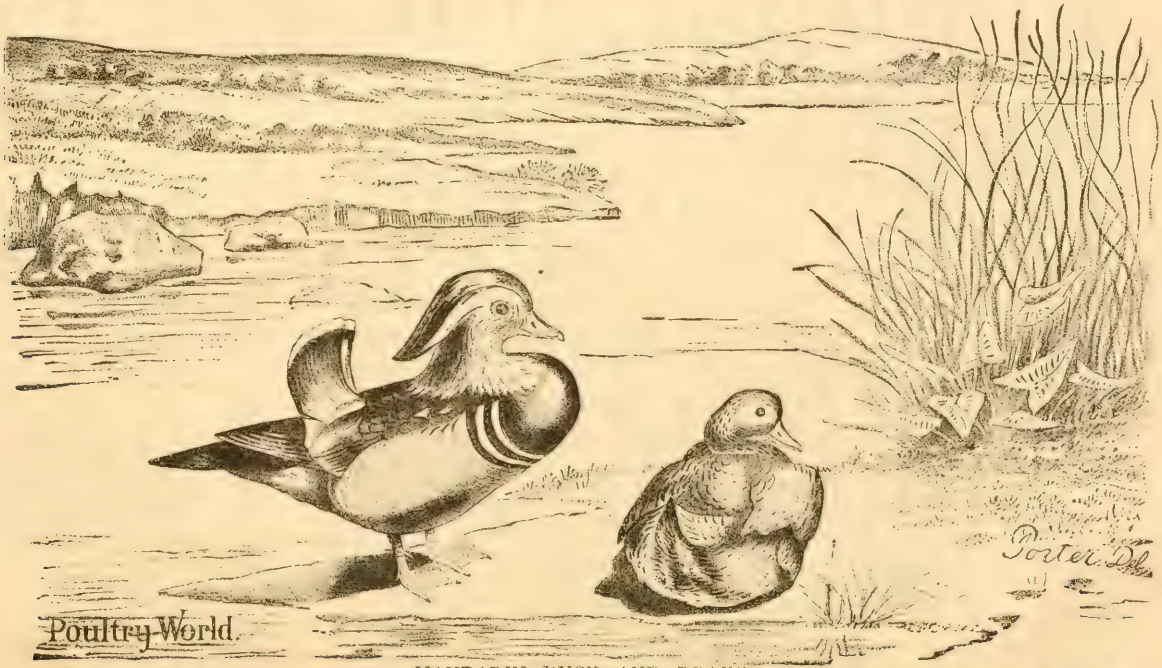
"This description is given by Mr. Bicknell, who is



CAYUGA DUCK AND DRAKE.

one of the largest and most conscientious breeders of this variety. The weight of the bird is from six to eight pounds, but with proper care may be increased. The flesh is said to be better than the Rouen or Aylesbury, and it has greater aptitude to fatten. Indeed, a little care is needed in the quality of the feed to prevent them from dropping down behind. They are good layers and fair mothers, for ducks, though we greatly prefer hens for hatching and raising the broods. The breed has so many good qualities, and yields so readily to treatment, that we are confident there is money in them for the faithful breeder who has a high standard and will work up to it. With a solid black plumage and a weight of eighteen pounds to the pair, the breed cannot fail to have a great demand from Europe at remunerative prices. For flavor and delicacy of flesh there is nothing in the line of domestic water fowl quite equal to the Cayuga Duck."

The Cayuga Ducks thrive well in a restricted range, form strong attachments to the place where bred, and are not much inclined to stray if favored with proper care. Under liberal feeding they fatten quickly, and their flesh has a game quality similar to that of wild fowl. When they have been longer cultivated, the largest being selected as breeders, they will undoubtedly attain the size of the Rouens or Aylesburys. They are prolific layers, producing about eighty eggs in the early spring, and in some cases a laying in autumn. Their bills are dark colored, some entirely black, having a black bean at the extremity, the color of legs being the same. There will be a fading out of these colors after



MANDARIN DUCK AND DRAKE.

a large number of eggs have been laid by the duck—any strong draft on the system causing this; also a lessening of luster in the plumage. Fanciers may well be encouraged to cultivate this distinctively American breed of ducks, for they are hardy and handsome. They have not received the attention which properly belongs to them in their own land.

Among water-fowl there are none more beautiful in plumage than the

MANDARIN DUCK.

This is sometimes called the "Fan-Winged" Duck, from the peculiar shape of a portion of the wing, which rises over the back in the shape of a lady's fan. The head has a crest falling gracefully back on the neck from the bird's head, and the colors of the body plumage are very fine and uniform in this curious variety, considered in China the prettiest of the race. Mr. Haight, an observant traveler in China, says that he found that "we in America call the ducks of China by names unlike those used by the Chinese. What we call the Pekin Duck is called by the Chinese in the north the *Mandarin* Duck, from the fact that they are kept in large numbers by the Mandarins at Pekin and throughout the northern provinces. What we call the Mandarin is a wild duck, large numbers of which are found in the north of China, and are called by the Chinese simply wild ducks. They perch on trees, except during the moulting season, when they rest among the leaves on the ground. They are capable of being domesticated, and numbers are sent to southern China for this purpose." It is said that they dwell in pairs mostly, and are so greatly attached to their

original companions that they do not usually mate a second time if one or the other is killed. This statement, probably, is more romantic than truthful. Very few Mandarin Ducks have been brought to the United States alive, though a pair or two have reached the public park in New York and the zoölogical garden in Fairmount park, Philadelphia. In habit they are much like our American Wood (or summer) Duck—shy, timid and secretive. But they are handsome, and for variety make a very beautiful ornamental water fowl for pond or artificial lake on a gentleman's estate. As regards size, they are about that of the American Teal.

These ducks are small in size, but none more beautiful in plumage have been found in any country. The male bird more especially exhibits beautiful colors, from September to the period of moulting each year, that are not excelled certainly by any of the duck kind. Green, purple, chestnut, cream color, claret, blue, white, gray, with other combinations or shades, render the plumage very attractive to the eye. He has a long crest of purple and green, with a stripe of cream color below, on the side of the head, two stripes of white across the breast and shoulders, back of which the plumage is very finely penciled, the ground color being ashy yellow. The neck is brownish red, and the back light brown The bill is crimson, legs pink and eyes black. The duck wears a plainer dress.

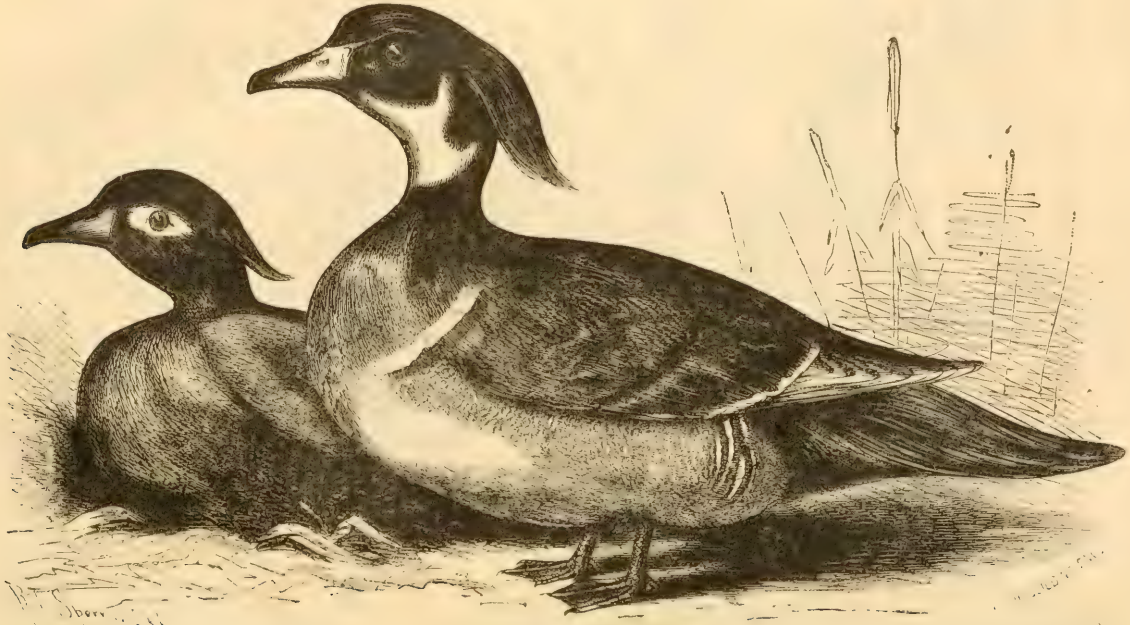
WOOD DUCKS.

The name "Carolina Ducks" has been applied to this variety, but this is not correct as indicating their par-

ticular location, for they are found in every State from Vermont to Florida. The name which we prefer has been given to them on account of the practice which they have of making their nests in the woods, generally in the hollow of some tree. They will choose a tree very near or overhanging the water, if possible, and if compelled to go some distance from water to find a suitable tree they take their young to the water one at a time, clasping them in the bill.

The Wood Duck is the most beautiful in plumage of all the water fowl of this country. The drake has a pendant crest of green, bronze and velvet, which, with the white bands, red color of bill, and orange red of the iris, renders the head resplendent with gay colors. The breast is chestnut color with velvet tinge, and marked with small spots of white. Besides, the back, lower part of body, wings and tail have black, white, green, purple and blue in bands, spots and shadings. The plumage of the duck is not so showy, and from June to September the drake wears a more modest dress.

The Wood Ducks have been kept in domestication for their beauty, which increases from year to year, the colors becoming better developed and more gorgeous. They hatch a dozen or more ducklings at a time when in the wild state, but when confined are not prolific, though they may become so when long under the influence of domestication. The Wood Ducks kept at present by the zealous amateur on account of their gaudy colors will fly like hawks if not confined. Audubon says of the birds in their native state: "The Wood Duck breeds in the Middle States about the beginning



WOOD DUCK AND DRAKE.

of April, in Massachusetts, a month later, and in Nova Scotia or on our northern lakes seldom before the first days of June. In Louisiana and Kentucky, where I have had better opportunities of studying their habits in this respect, they generally pair about the first of March, sometimes a fortnight earlier. I never knew one of these birds to form a nest on the ground or branches of a tree. They appear at all times to prefer the hollow, broken portion of some large branch, the hole of our large woodpecker or the deserted retreat of the fox squirrel. They are much attached to their breeding places, and for three successive years I found a pair near Henderson, in Kentucky, with eggs in the beginning of April, in the abandoned nest of an Ivory-billed woodpecker. The eggs, which are from six to fifteen, according to the age of the bird, are placed on dry plants, feathers, and a scanty portion of down, which I believe is mostly plucked from the breast of the female. They are perfectly smooth, nearly elliptical, of a light color between buff and pale green, two inches in length by one and one-half in diameter."

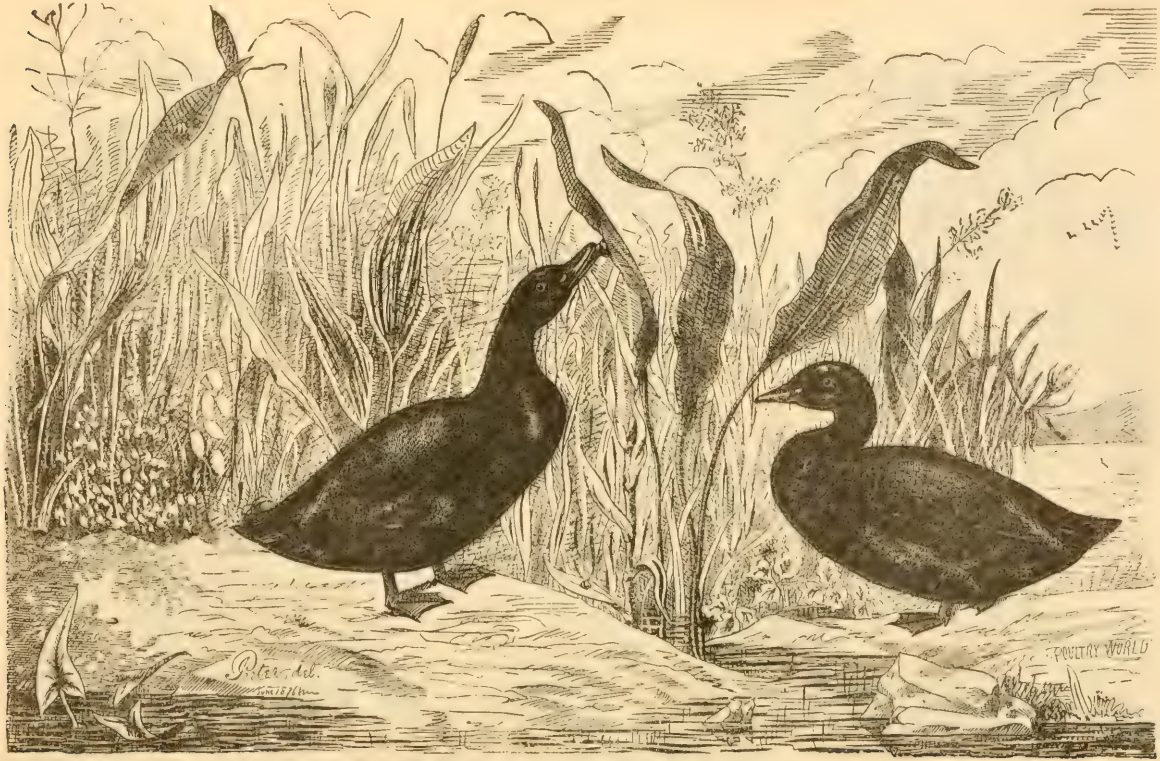
Among the "bantam breeds" of ducks may be mentioned the

BLACK EAST INDIAN DUCKS.

As the name indicates, the color of plumage is black throughout, yet having a greenish tinge or reflection. The drake has a bill very dark "yellowish green" in color, the duck's bill being very dark. The smaller these ducks, the better for purpose of exhibition.

THE CALL DUCK

has been bred in perfection in the United States by very

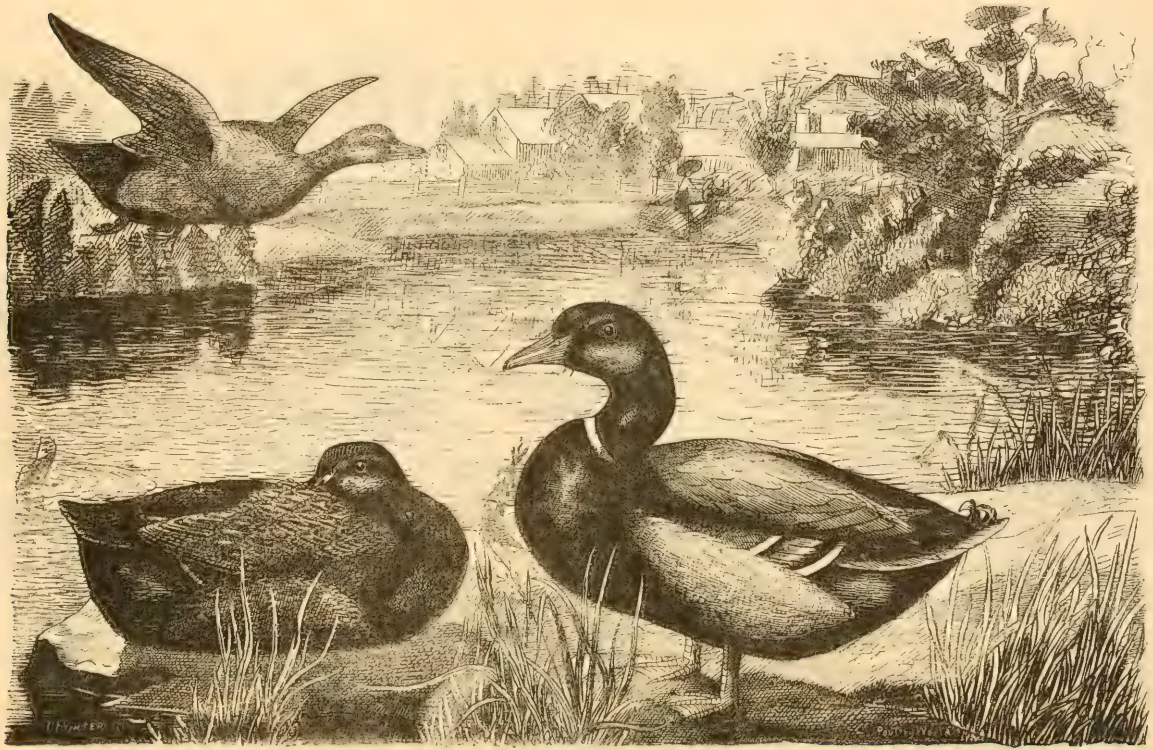


BLACK EAST INDIAN DUCK AND DRAKE.

few fanciers of the aquatic races. The "Call Ducks" are of two distinct varieties, and in color these differ materially. There are the *Gray* and the *White* breeds. In size and form they are closely alike; both are much less in size than the average domestic duck. Indeed, for the show room, the *smaller* the "Call Ducks" the better they are esteemed. For colors, the White variety should be spotless white. The Gray is very similar in plumage to the Rouen Ducks, both male and female. They are sometimes called "Bantam Ducks," and are bred as small as possible by all who strive to win prizes with them in the exhibition room. Upon private ponds or lakes the Call Ducks of both varieties are highly ornamental, and in the breeding season they are exceedingly active among their aquatic companions. They are a handsome, sprightly water fowl, and are constantly growing in popularity among cultivators of this class of birds. The Call Ducks are much used as decoys in wild duck shooting. For this purpose they are made up of a cross between the common small "puddle duck" and the wild Mallard. The result is a compound of the tameness of the domestic variety and the power of flight of the wild bird. The decoy is trained to fly from the hunter's feet to meet an approaching flock of wild birds and then, at the call of its master, to return, luring the flock within shot. Ducks can be highly trained with much more ease than hens can be, as the former are very knowing animals.

MUSCOVY DUCKS.

The name Muscovy is a corruption of Musk, the



GRAY CALL DUCK AND DRAKE.

term referring originally to the musk-like odor of the skin, which is, however, dissipated by cooking. The *Standard* recognizes two varieties—the White Muscovy and the Colored Muscovy—the former pure white and the latter a "lustrous blue black, sometimes broken with white feathers." The Muscovy Duck is a native of South America, where it exists in a wild state, and is also extensively domesticated. The drake weighs ten or eleven pounds and the duck five to seven pounds, the difference in the sexes in this respect being remarkable. When this species is half or two-thirds grown they are excellent for the table. The drake possesses a quarrelsome disposition, and woe to birds of other breeds that come within his reach. The Muscovy, in a wild state, possesses good powers of flight, and even in the domesticated state is fond of making excursions upon the wing. Unlike our other breeds of domesticated ducks, this species readily perches like the common fowl.

The feathers of the White Muscovy have the same loose appearance as in case of the colored varieties, not lapping compactly on one another, which is a disadvantage to these ducks so far as looks are concerned. The face, about the eyes, is not covered with feathers, and has a bright red color; also the base of the bill has an excrescence, quite prominent, of a bright scarlet. Muscovy Ducks are found wild in Brazil in great numbers, and are there domesticated, those less than a year old being highly esteemed for the table. The peculiar odor of musk, which is apparent when the bird is alive, is not noticed when its flesh is cooked. They are not migratory birds, but active on the wing, and will alight

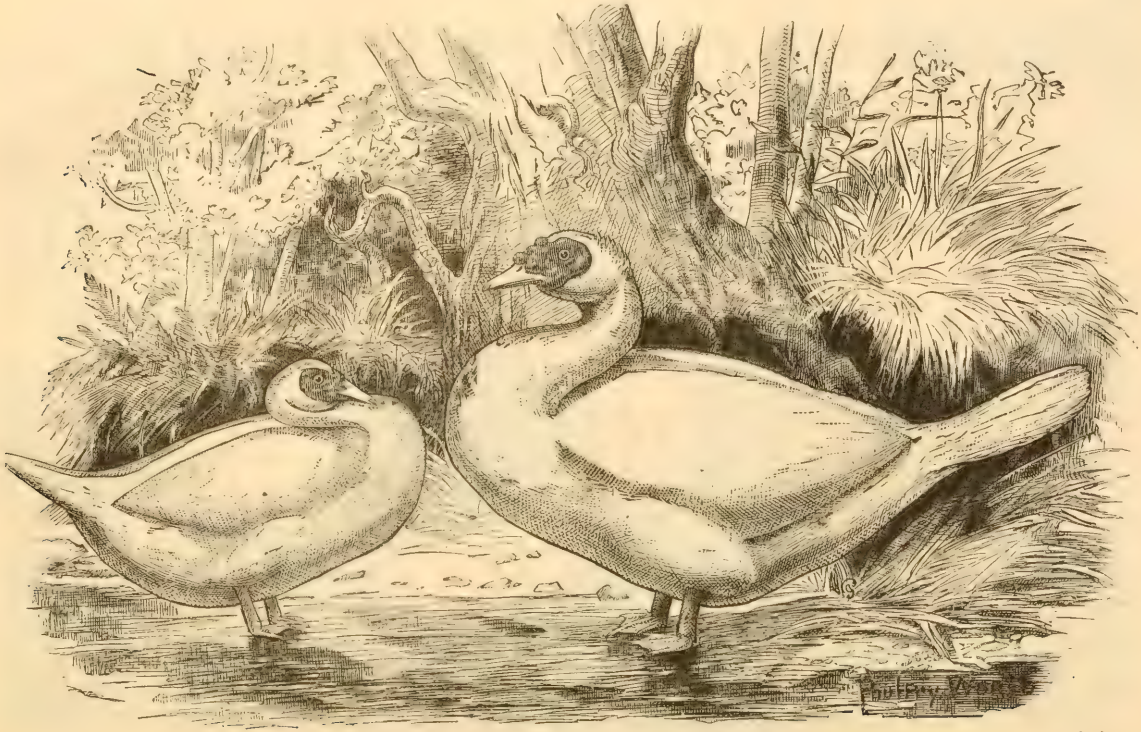
WHITE CALL DUCK AND DRAKE.

on trees, often building their nests some distance from water. Males will fight with each other at the beginning of the breeding season with great persistency, tearing feathers and flesh if possible.

Muscovy Ducks are capable of sustaining themselves for quite a time on their long and powerful wings, and are fond of taking flights about the neighborhood, but in most cases they return punctually to their home, after the manner of pigeons. As they lay fewer eggs than most other ducks, this fact, with the detestable disposition of the drakes, makes them an undesirable breed to keep. The drakes are continually fighting or "raising a row," in some instances catching an unfortunate duck of another species by the neck and holding its head under the water until drowned. The Musk Duck is domesticated to a considerable extent in this country and Europe, but not nearly so largely as in some parts of South America.

THE EIDER DUCK

is one of the sea-duck species, having, in addition to its thick, handsome plumage, a down of royal softness, as an additional protection for it and its eggs in the cold country in which it breeds. In size it seems to approach nearer the goose than the ordinary duck. Its length is over two feet, and its weight from six to seven pounds, being the heaviest in winter. It breeds and passes the summer in Labrador, commencing to make its nest the last of May, among the grasses and bushes near the water, of seaweed, twigs, and mosses, each nest containing from five to seven eggs three inches long, and of a pale, olive-green color. After the eggs are laid the



WHITE MUSCOVY DUCK AND DRAKE.

female plucks from her breast a few ounces of down (the male has been known to do the same) and places it under and around the eggs, so that when, during incubation, she leaves the nest for food and exercise, the eggs are covered by the down and the warmth retained. When the young are hatched the mother leads them, or takes them in her bill, to the water, where she teaches them to dive for their food, and protects them from danger. By the early part of August, the old ducks and their broods are moving south. They are rarely seen south of New York, and are common in the winter season from Nova Scotia to Massachusetts. When we take into consideration the fact that not only does this duck, in its wild state, nearly equal, in all essential points, our long-domesticated ones, but that it has this rare additional power of producing down, which is so highly prized for its warmth and lightness that it is worth between three and four dollars per pound, we feel that its domestication is not only desirable, but that it is a matter of sufficient importance to receive a thorough and practical trial. It is said that it has been raised in captivity, in which state it is as tame and gentle as the domestic duck, with which it readily associates. We may add that the eggs are considered a great delicacy by the fishermen, and also that the flesh is well flavored.

COLORED MUSCOVY DUCK AND DRAKE. (37)

GEESE.

WE now devote a portion of this volume to the subject of rearing and keeping *geese* upon the poultry-farm, or otherwise; and this well-known and greatly esteemed representative of the feathered race is an important item, in an economic view, in the yearly aggregated value of our poultry product in the United States.

Probably in no country in the world do there exist greater facilities, in various ways, for the profitable raising of geese than those easily accessible to our farmers and country people in various sections of this land. Certain is it, too, when the surroundings are appropriate, and the land upon which geese may be reared is not suitable or valuable for other rural or agricultural purposes, that this grand bird is one of the most profitable that can be cultivated, for various reasons.

And yet it is a fact that but few American poulterers appreciate the goose at its fair value. And taking the breeders of poultry together, as a mass, there is but a small minority who care to attempt geese-culture anyway, or to any considerable extent.

The poorest of poor pasture-ground will suffice for their grazing. Swamp, marsh, stream or river suits them equally well, for bathing, feeding and sporting in the

water. And between land and water they will contrive to forage largely for their sustenance, if they have room enough — thus reducing the cost of their keeping for most of the year to a merely nominal sum.

Of all known poultry-stock, geese are in the main the most profitable fowl that can be reared, where the situation is such as is appropriate and convenient on which to breed them — and the land they occupy for range is not needed or suited to other farming purposes.

There are thousands of old farms and estates along the American sea-coast, as well as in the interior, whereon geese could well be kept and reared to profit — which lands are useful for little else. And as we have heretofore suggested, we repeat that those who own such otherwise useless and uncultivated property, on which there are the requisite "water privileges" we have referred to, will do well to bear this hint in mind.

The experiment, at least, will cost but little, and with intelligent management, we are confident that success will follow upon this undertaking, in almost any location where geese are raised in quantities within reasonable distance of a good market. The breeding of geese is a very simple process, where the farmer or poulterer has the proper surroundings and facilities on his place to grow them. But water is a prime necessity for their accommodation; and without this — in the shape of marsh, run, pond, swamp or sea-shore estuary — geese cannot be reared to advantage, of course, in any quantity.

Other kinds of poultry are good in their way. But there is no portion of the goose that is not good for something. The liver is a choice tid-bit, as every lover

of the *pate de foie gras* very well knows. The feathers are valuable, and they yield these when dead or alive, in considerable quantity. Their plumes make admirable quill pens. When fatted, their meat is a most desirable dish in cold weather for the table of the *bon vivant.*

And while living, if kept upon a private pond or miniature lake, they are next in beauty to the admired swan, as an ornamental water fowl, upon the premises of the well-to-do farmer or country gentleman. Why not breed geese then?

The reasons given generally are because they are supposed to be enormous eaters, and because the method for raising them successfully is not understood. But as a matter of fact, neither are they expensive to feed or difficult to rear!

Anybody who can set a hen, and who is able to care properly for a brood of chickens, may raise a flock of goslings — provided the birds have water at hand for their accommodation, when it is needed for them.

Usually a gander to three or four geese will be found sufficient. But they will breed better in pairs than otherwise, as the male of this breed (like the cock-pigeon), when the female is sitting, guards the nest while the goose is away feeding, daily.

The gander is at his best for service after his third year, and he will last many seasons in full vigor. As layers, geese are at first inconstant. After they are more mature, they will lay pretty regularly, and will yield a litter of fifteen to eighteen eggs before inclining to be broody. But all depends upon the weather, and the season of the year.

Occasionally old geese will lay in a year as many as sixty to seventy eggs, but this is not of common occurrence. The average number is forty-five, or less. If they can have plenty of water and pasture ground to roam in, geese will thrive and grow, without getting fat, if they have little or no feed besides.

When the goose is ready to lay, you will notice that she carries straw, sedge or stubble in her bill to make a nest with. Confine her in a shed-roofed box, and she will shortly show her eggs. In the same nest where she deposits her first egg, usually, she will lay out her litter of fifteen to twenty eggs.

When broody, she will remain upon her nest, after laying. Give her a deep, oval nest to sit in, and let her have thirteen to fifteen eggs to sit upon. She will bring forth her brood in twenty-eight to thirty days (according to the warmth of the season), and if left alone and undisturbed by the rest of the flock, or by other interference, the mother will almost invariably take good care of her goslings from the outset.

While incubating, the goose should be well fed. If left to gather her own sustenance, she will frequently remain away from her eggs too long, and allow them to chill in cold weather. Food and water near by, within the house where she sits, will obviate this.

Like newly-hatched chickens, the young goslings do not need food for twenty-four hours after hatching. Then give them stale bread, scalded bran and potatoes, milk curds, dry boiled green stuff and hard-cooked eggs for a week. Keep them *away* from the water for two weeks—and house them, dry and warm, until they get strong on their legs.

The goslings may be allowed to follow the mother to the open water when fifteen days old, with safety. Previous to this time, their down is not a sufficient protection against the chilling effects produced by their earlier indulgence in the swimming bath. From this time forward the young must be regularly housed at night, and fed for some weeks steadily with soft food of meal and vegetables at morning and evening. They will, under this treatment, grow smartly, and soon learn to become active foragers and grazers, like their parents.

Rats will devour young goslings, if they have an opportunity, and chance to be plentiful in numbers in the immediate neighborhood of the goose-pens. But they do not trouble the geese. The fox is the most dreaded enemy to the goose-keeper. But his depredations are limited in great part to the night time. It therefore becomes a point of consequence to goose growers to make sure that the houses in which geese are sheltered at night are fastened up and are fox-proof.

The weasel, the skunk, the muskrat and the mink will assail geese also. And where a large flock is cultivated they will attract these night vermin to their quarters from a long distance, frequently. Care should be had, therefore, to make the house a protective shelter against the probable or possible incursion of these marauders.

The building where the geese lay and sit, and where previously they resort at night to roost, may be a plain board or plank lean-to shed, six feet high in front, and running back to four feet high, for walls. Shingle or batten this tightly. And when the young ones are

CANADIAN WILD GEESE.

hatched out, care should be taken that the floor is kept dry for two or three weeks, lest they take cold and die off before they are two weeks old.

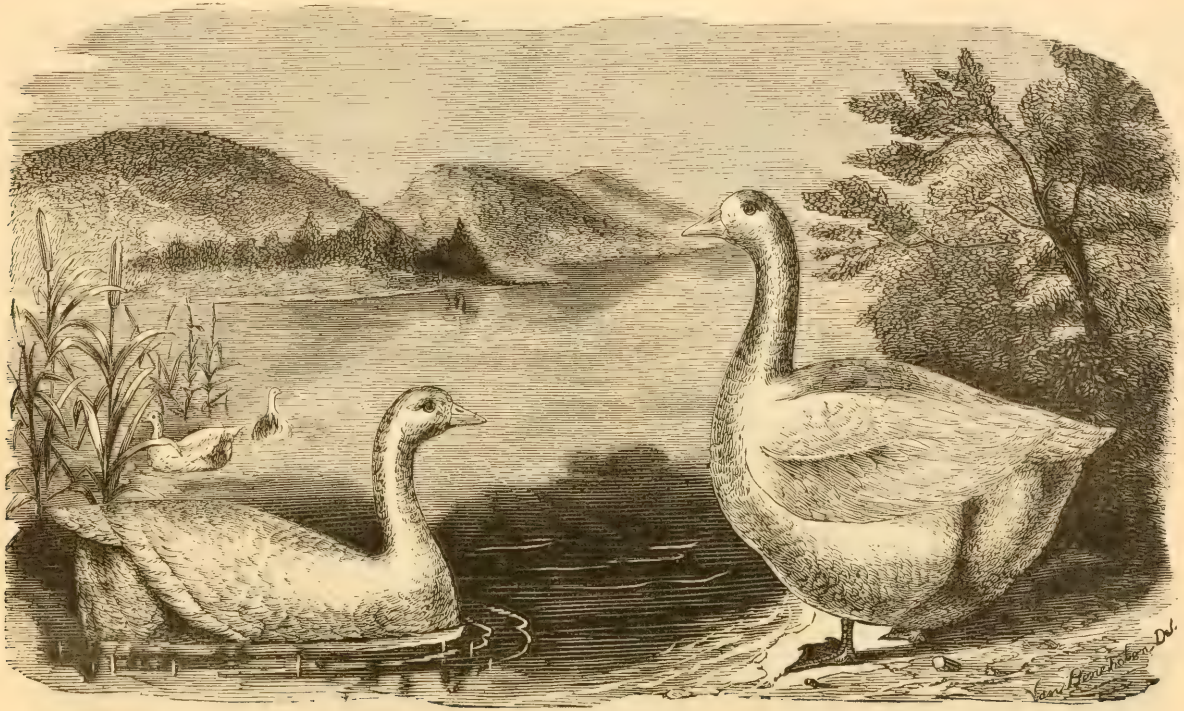
The floor of the house should be kept *clean*, also, when the young goslings are about. And for a month after the hatching, it is best to confine the mother and young by themselves. The little ones need to be better fed than the old birds, and consequently (until they go to the water) they should have a small pen away from the main flock to dwell in exclusively, with the mother-goose.

Geese are hardy under ordinary fair treatment. There is very little sickness among them, usually, and they live to a ripe old age, if permitted to do so. But commonly it is desirable to slaughter and market this race during the first year of their lives. A yearling goose (or gander) is at its best for eating at ten to twelve months old.

They should have good foraging ground from the beginning, and it is better with these (as with turkeys) intended for marketing that they should in some way be well fed always, from goslinghood to early winter time. Then they may be quickly fattened, when put up at last.

The flesh of geese is very desirable eating, but they must be fattened and slaughtered at Christmas or New Year's to render them the most salable. *Old* geese are not toothsome, ordinarily.

For fattening, the best corn meal and potatoes boiled together are as good a kind of food as can be given them. They should have all they will eat of this three



EMBDEN GEESE.

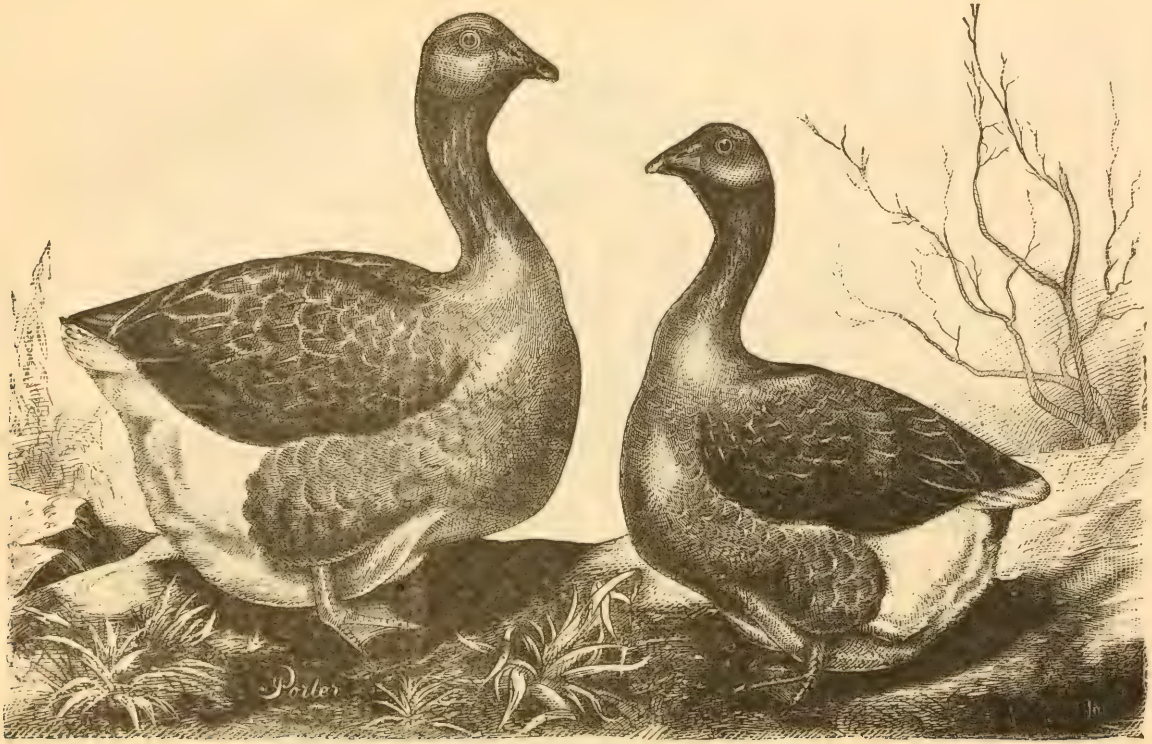
times a day, just before killing. And in a brief space of time they will be in readiness for the butcher and a market, where they will command a good price, among seasonable dead poultry.

During the summer and fall they will resort to the pasture-pond, or stream, and obtain green and other desirable provender, to their satisfaction. At night, when they return to the houses, give them a dish of mush, or a supply of sound whole corn. This will keep them till morning. Then furnish the early meal, and set them at liberty for the day.

In this way, systematically managed, geese may be raised by any one, with but slight experience even, to his satisfaction and pecuniary profit, upon premises where the stock may be able to gather a goodly portion of their daily food on the meadows or streams adjacent to their coops or houses, which are best built near the margin of the water they daily visit, for feeding and pasture.

The feathers of an adult goose will weigh about a pound and a quarter annually. Some persons pluck them twice, some thrice in a year, and obtain five, six or eight ounces at a time.

Inasmuch as there exists no extraordinary difficulty in raising geese, since at maturity these splendid water fowls are salable at a remunerative price, when fattened and slaughtered; and when it is considered how valuable are their feathers, it certainly seems that much greater numbers might be bred in this country, to advantage, than our poultrymen and farmers hitherto deemed it advisable to produce. The demand for geese will increase as this article of food becomes appreciated.

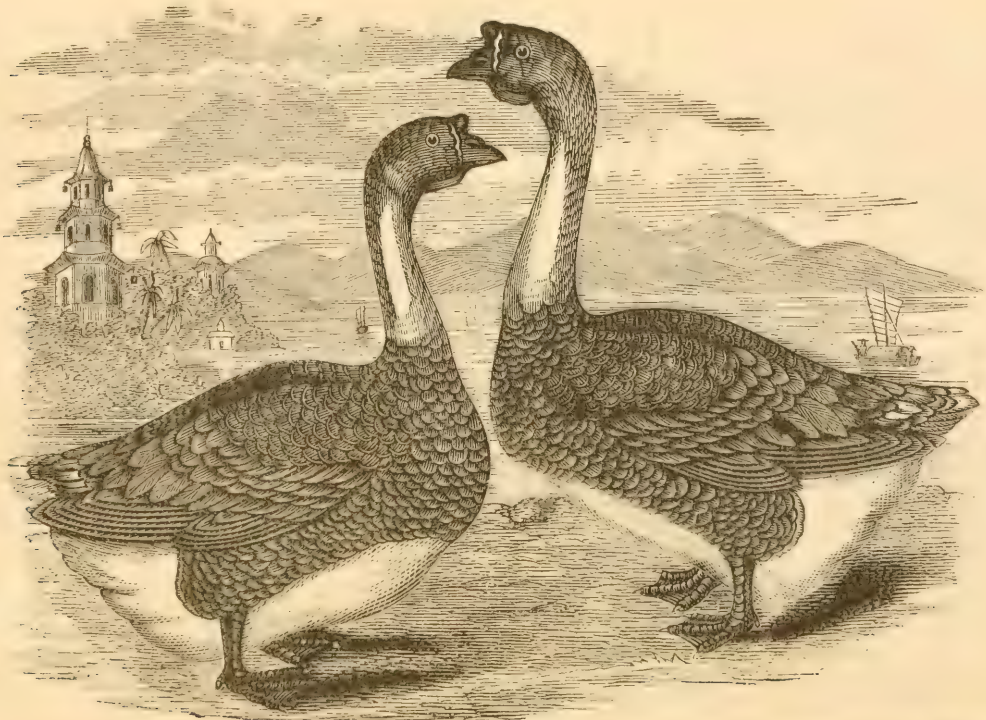


TOULOUSE GEESE.

The most popularly bred of all varieties of the goose are the common or mongrel gray and white sorts. These are, generally speaking, descendants from the original Gray Lag Goose, and may be found widely disseminated in small flocks in every portion of this country, especially in New England and throughout the Northern States, being cultivated for the nearest city markets, where thousands are sold annually for consumption.

Long domestication has increased the size of these geese. And in many districts where attention has been and is given to selecting the best and largest ganders every year to breed to the better class of females, fine yearlings are produced by poulterers who understand this branch of their business, and who keep their geese upon the right kind of land — as a specialty. In addition to this mongrel race, we have also the superior White Embden or Bremen variety, the great Toulouse, the mammoth Hong-Kong or African, the Egyptian, the small Brown China Goose, the White China Goose, the Canada Goose, and the Sebastopol — a new variety, but little known.

The three principal sorts now named — to wit, the Bremen, the Toulouse and the great Hong-Kong, are but sparsely bred among us, compared with the number of common geese grown annually in America. But the introduction of ganders of either of these breeds among the flocks of common geese, has had the same effect in increasing the size of the progeny (in the first crossing) that the mammoth Bronze cock has occasioned by his admixture with the common race of hen-turkeys around us.



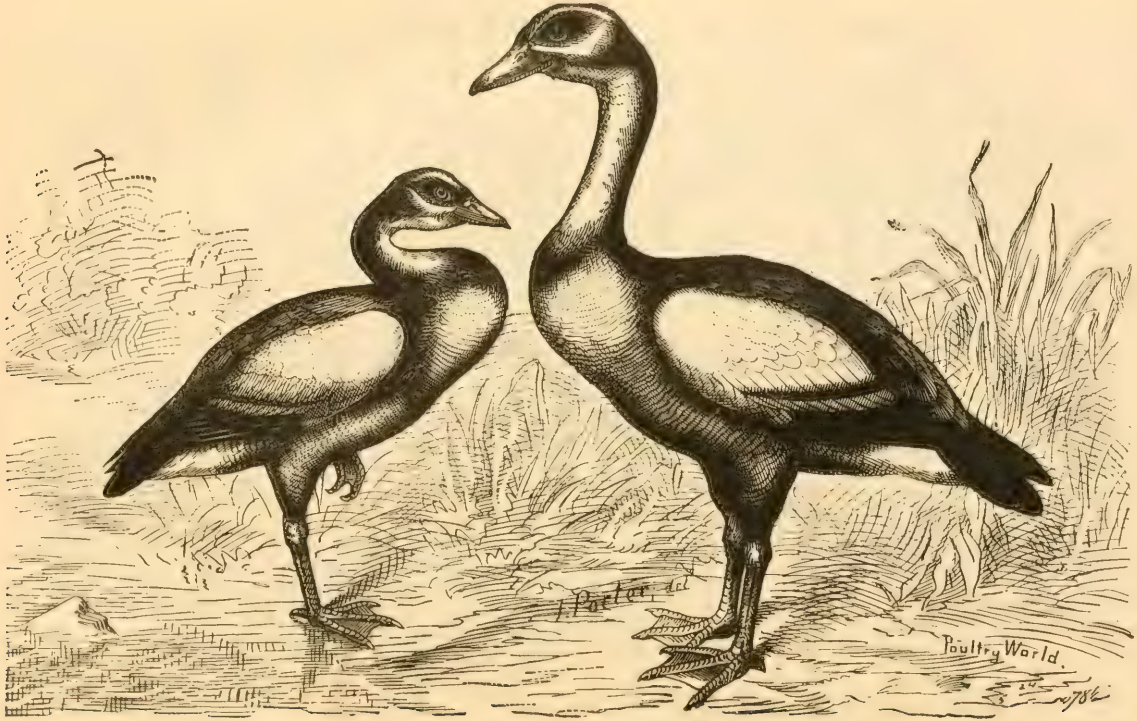
AFRICAN GEESE.

THE AMERICAN WILD GOOSE,

which is called in Europe, technically, the "Canadian" or Canada Goose, is very well known throughout this country; and dead specimens are frequently seen in our city markets in the fall or winter every season. These are shot "on the wing," as they pass in their migrations in myriads over the prairies and along the sea-coast—from their breeding places in the far North to more genial southerly climes, whither they migrate annually.

Many attempts have been made, where ganders of this tribe have been occasionally secured alive, to breed this bird as a cross with the common goose. But the experiments have not proven often very successful. The nature of the Wild Goose is not favorable to this mixture. Audubon, the ornithologist, kept a few, but could not in three years trial induce the *old* birds to breed in confinement. He took a few young ones, which he secured at the same time, and these bred indifferently. In other instances, where wounded Wild Geese have been captured, and bred to the common breeds afterward, it is recorded that young have been hatched from the union. These goslings were *mules*, however, and they were not productive.

Although it has been claimed by a few persons who have bred the Wild Goose among their domesticated flocks that the progeny of their connection has been as profitable as the others, and that the half-bloods show superiority in size, we are satisfied from abundant *contra* testimony that this union is not a practical thing, as a rule, even if it were not an exceedingly difficult thing to procure the Wild Gander in a fit condition to breed



EGYPTIAN GEESE.

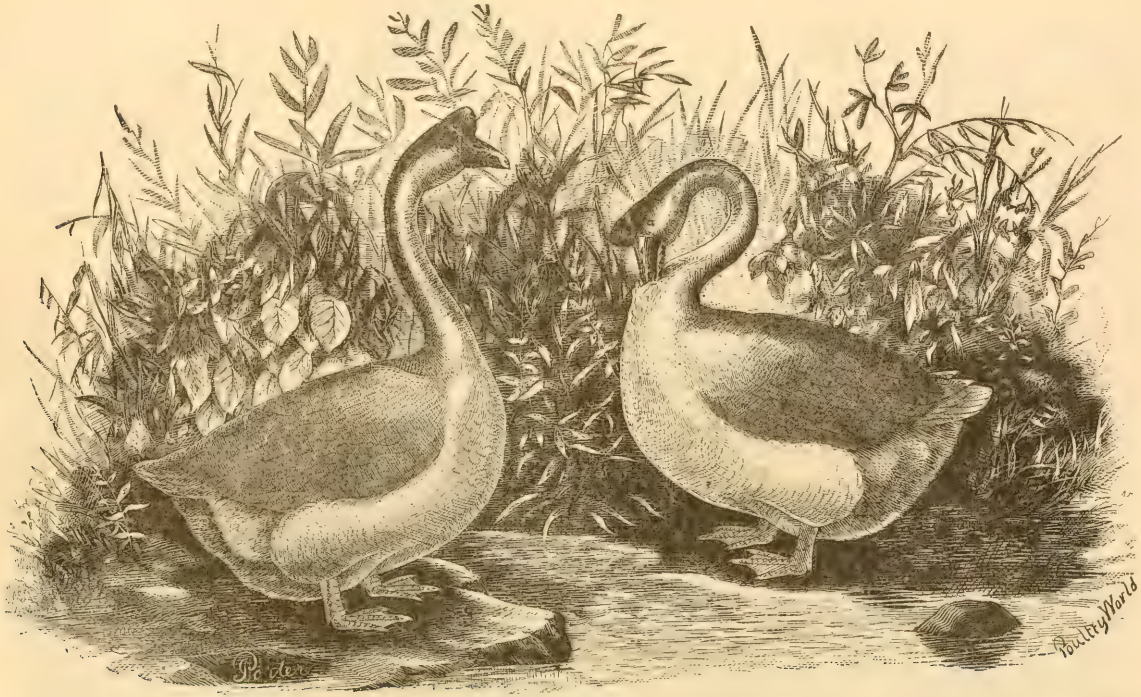
him to our domestic geese. And so we opine that the better method is to make use of the varieties which may at all times be readily obtained, and which, when grown together or among the mongrel race, will yield the larger product, with a much lessened degree of cost and trouble.

THE COMMON DOMESTIC GEESE

are too well known to require at our hands any elaborate description. They are grown everywhere and anywhere, in small or large flocks, where the commonest facilities are at hand, or where any kind of feathered biped can subsist. But the better the care and conveniences afforded them, the better the results to their keepers, as a matter of course. *All* fowl-stock thrives when well attended to.

The common geese, either white, gray or mottled, are, in proportion to the whole number bred in this country, at least a thousand to one. The large varieties we have mentioned are comparatively but seldom seen on our farms; and either the Bremen, the Toulouse or the African are to be found, in their purity, in possession of but few fanciers—who grow the latter for breeding stock or as ornamental water fowl, for the most part. In view of the incontrovertible fact, however, that the bulkier varieties, at the same age, may be grown just as easily and with as little trouble or care as the others, it is surprising that those who cultivate this race at all do not choose the heavier and larger sort in preference to rearing the mongrels!

An ordinary eight or ten-pound "green goose" at Christmas-time will command for price as dead poultry



BROWN CHINA GEESE.

in market from a dollar and a half to two dollars cash — according to weight and quality — and these are produced by the thousand every year, among the common race. At nine or ten months old, a well-fed specimen of the larger-bodied varieties will draw twelve to fourteen pounds (frequently more), and sell for two or three cents per pound higher than the best of the mongrels will bring. And the extra cost of bringing the more meaty fowl to this condition, at the age mentioned, is hardly perceptible.

Why, therefore, shall we not cultivate the heavier sorts? The first cost for breeding-stock, it is true, is greater. But the rapidity with which this race is multiplied — where the proper facilities are at hand to grow geese — is a sufficient answer to this oft-repeated objection, to every sensible, enterprising poultryman.

THE EMBDEN GOOSE

is also extensively known as the White *Bremen* goose — the first that we ever had in America having come direct from the port of Bremen, Germany. These were imported by John Giles, of Providence, and by Col. Samuel Jaques, of Ten-Hills Farm, Medford, Mass., some sixty-five years ago.

These geese are of mammoth proportions, as also the Toulouse; ganders of either breed frequently weighing twenty-eight to thirty-five pounds, each, alive. Mr. Sisson, of Warren, R. I., a few years later than the other importers mentioned, received from Bremen a few of these splendid fowls, and wrote that "they lay early in March, sit and hatch with much greater certainty than do the

WHITE CHINA GEESE.

common geese, will draw nearly double the weight at same age, yield quite twice the quantity of feathers annually, never fly at all, and are uniformly of a snowy whiteness."

Within twenty-five years, the Bremens have been sold at $40.00 and $50.00 a pair, for breeding stock. Now they are more common, and can be had at $10.00 the pair, of fanciers in various parts of this country. Crossed with the common white goose, the progeny retain the original pure white color, and are enlarged greatly in size, at once.

THE TOULOUSE GOOSE

is also an enormous bird, but is thicker and shorter in form. Its color is brownish gray, all over, with lighter tinted plumage under the breast and belly. They grow very rapidly, from the shell, put on fat readily, and at maturity will equal the Bremen in weight, and frequently are known to excel the latter in this respect. These crossed upon the mongrel gray or brown goose, produce a progeny that are also increased in size largely — and which are a very salable article of poultry at about Christmas-time, and subsequently, in winter, annually.

THE AFRICAN GOOSE

averages the largest of all the varieties known to Americans. Pairs of the early importations of this variety into this country are publicly recorded to have weighed fifty-six pounds, for a gander and goose; and forty and fifty pounds per pair is not an uncommon weight to be attained at the present time, where these fowl are purely

SEBASTOPOL GEESE.

bred from original stock. We have had this breed (in limited quantities) in the United States for about thirty-five years.

The Hong Kong (or "African") goose is brown, in color not unlike that of the Toulouse. But his shape is entirely different, and he wears a large horny knob at the base of his upper mandible, which distinguishes him from the others — and which has in some places given him the name of the "Great Brown Knobbed Goose."

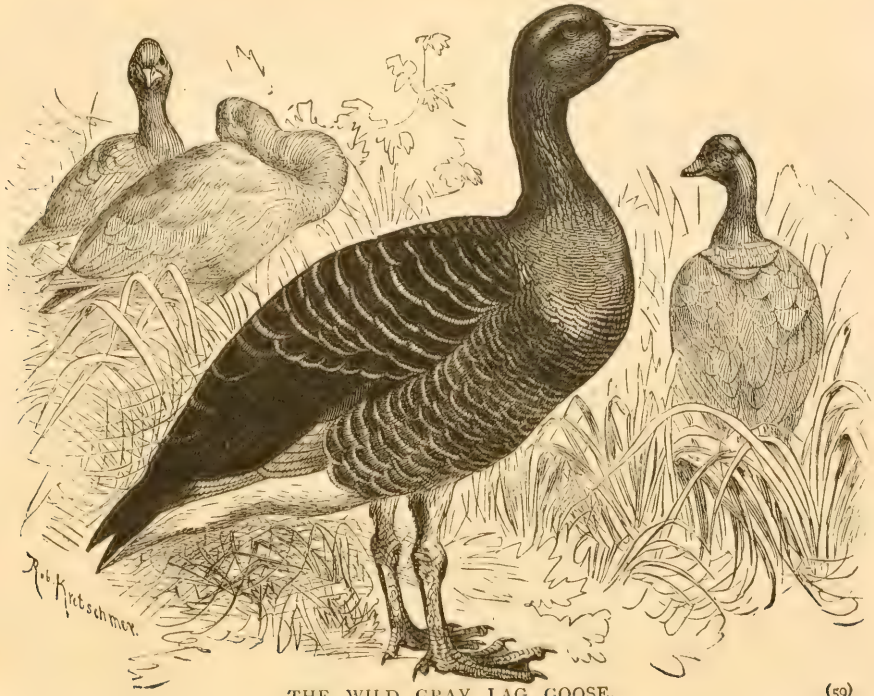
So far as we are informed, this variety of geese lay but few eggs annually, in comparison with the yield by the Bremen and Toulouse. And this fact perhaps accounts for the scarcity among us of this really fine water fowl.

But these three varieties are now thoroughly appre ciated in this country and in Europe. And whenever they have either of them been used to cross upon the common geese, they have unmistakably left their mark upon and vastly improved the progeny that has succeeded such crossing.

THE WILD GRAY LAG GOOSE.

The cut on page 59 is an accurate representation of the Gray Lag Goose (*Anser ferus*), claimed by the best, as well as the oldest authorities, to be the original of the race known to Europeans, and considered identical with the Common Gray Domesticated Goose, familiar the world over, to-day.

The Gray Lag Goose is among the largest of the various wild species, in its native state. They will average ten to eleven pounds weight. The bill is flesh-colored,



THE WILD GRAY LAG GOOSE.

usually, tinged with yellow. They are grayish-brown in the plumage, the breast and belly whitish, graded with ash-color; the back and rump feathers white and yellowish-brown; and the feet flesh-colored, or pinkish. In its domesticated state, this goose grows somewhat larger, though the average size is about that above given — say under twelve pounds for yearlings, rather than over that weight.

The Wild Gray Lag is well known all over the temperate portions of Europe. They go to and fro in large flocks, as do our Wild Canada Geese, and when shot and properly cooked are found to be most excellent eating. As the undoubted originator of our widely disseminated Common Goose, its value to the poultry-loving world is well appreciated.

OTHER VARIETIES OF GEESE.

The *American Standard of Excellence* recognizes, besides the three principal breeds noted on the score of utility, viz., the Embden (or Bremen), the Toulouse and the Hong-Kong (or African), three others, which may be considered more ornamental than useful, viz., the Egyptian and the Brown Chinese and the White Chinese. Of the Egyptian little need be said. It is rare, being seldom seen at our shows, and has the reputation of being a bad breeder. The Brown Chinese is but a copy of the African on a smaller scale, the colors and proportions being the same, and the White Chinese is a counterpart of the Brown. The Sebastopol is derived from the region from which it takes its name, and possesses the merit of oddity in plumage, which is its principal claim to attention, as will be seen in the cut.

SWANS.

ALL varieties of swans possess the same general characteristics, the long slender neck, the large body that sits gracefully in the water, wide-spreading wings, and feet that send them through the water without apparent exertion. The swan has a wide habitat and is found in all but equatorial regions. In its habits the birds are migratory and fly, like the goose and duck, in a phalanx of two lines meeting at a point, something like a capital V laid upon its side. They seem to experience difficulty in rising, striking the water downwards with feet and wings and going half flying and half swimming for a considerable distance, before they take the air. But once on the wing, the birds rise to a great height, sometimes attaining several thousand feet above the earth. The swan, generally if not invariably, both rises from and descends to the water.

Swans are monogamous, and the union once effected endures for life. Exceptions to this have been noticed, two females having been observed to mate with one male, but these exceptions are extremely rare, and but serve to "prove the rule." In their married life they present an example worthy of imitation by the human race. They display great affection, an extreme fondness for each other's society, swimming together and caressing

one another with beaks and necks. In case of attack they will defend each other with courage and daring. They unite in the labor of nest building, the male gathering the greater part of the materials, the female being the principal builder. A swan's nest is no small affair, built up with coarse materials and lined with finer grasses, into the construction of which a great mass of materials enters. In the care of the young the male bird does his full share of duty, and equally with the female watches over, attends and protects the cygnets until sufficiently grown to provide for themselves.

The egg of a swan is very large, and usually of a dirty white or pale green color. It is enclosed in a thick heavy shell, to prevent breakage from the great weight of the birds when incubation begins. From six to nine eggs are usually laid and then the female sits, the period of incubation being variously stated from thirty-five to forty-two days, the former probably being correct. When sitting it is not only useless but dangerous to disturb swans. Their wings are powerful enough to break at a single blow a man's arm, and at incubation they seem more pugnacious and intolerant of the presence and interference of man than at other times. Throwing meal upon the water is recommended as a good method of feeding the young. The old birds, when they have plenty of water range, need little or no feeding, except in severe weather, when grain may be given to them.

Swans live to a ripe old age. "The century-living crow" that Bryant sings about, is but a puny upstart compared with the swan, if Willoughby is correct in fix-

ing the limit to their lives at three hundred years. We may reasonably doubt this, but we cannot doubt that they reach a good old age. Probably a hundred years as the life-time of a swan would be within the limits of truth. One, even at such figures, wouldn't need to renew his stock very often. His first purchase of cygnets, barring accidents, would last him as long as he desired to breed swans, and be a pretty start for his children or grandchildren in the business.

The natural food of the swan is chiefly vegetable, although an occasional fish and the spawn of many fishes come not amiss. Mr. Francis Francis has computed that at the lowest rate two hundred swans will, in two weeks, consume one hundred and forty millions of fish eggs. While, therefore, a trout pond might be an admirable place for swans, swans would not prove desirable assistants in rearing trout.

The male swan is called a "cob" and the female a "pen." The males care but little for the society of the females except their own mates, and less for that of other males. They have no stag parties. But the females are gregariously inclined and like to flock together, like ladies at a tea-table, perhaps talking over the latest fashion and society notes in the swan world.

The swan as yet is but an imperfectly domesticated bird. It retains many wild habits and instincts, although many of the birds are tame enough to eat almost out of the hand. By hatching the eggs under a goose, and by more care in bringing up the young, it is possible that the bird might be rendered more domestic in its habits, and with this might come a greater prolificacy,

the six to nine eggs being multiplied into fifty or sixty, as is the case with the goose.

If such a result should follow, the young, being hardy and easily raised, might become a market product, as their flesh is said to be excellent. The day may come when roast swan will be almost as common as roast turkey and may grace many a Thanksgiving feast or Christmas festivity, when severed families are reunited and domestic joys renewed.

The Mute Swan (*Cygnus olor*) is the largest, most beautiful and majestic of all the varieties. In length it sometimes is fully five feet, and the expanse of its wings is remarkable. Its plumage is of a vestal whiteness; the bill is red, with a large black protuberance at the base; the eye is of a soft brown hue; and the legs and feet are of a brownish or blackish-gray color. Its name is misleading as the bird is not mute but has a soft and low voice tinged with melancholy, as if it had known a lingering sorrow too deep for words. Its long neck is gracefully arched as it floats upon the surface of a still lake, like a living gondola, and brings to mind a dream of Venice.

> "A dream of Venice brought to our own doors,
> With all the romance of its early days,
> Its doges and the marriage with the sea;
> We list for dip of some lorn lover's oars,
> Or song of gondolier borne through the haze,
> To make the dream a bright reality."

It flies with almost incredible rapidity, a hundred miles or more an hour. The cygnets when first hatched, and for a considerable period of time, are clad in gray, which

THE WHITE SWAN.

gradually yields to the pure white plumage of the adult bird. It would be difficult to imagine a more beautiful sight than is presented by a half dozen of these large, graceful fowls swimming upon a quiet expanse of water. They are the fit accompaniment of refined taste that often transforms a rugged farm into a beautiful country seat where wealth and culture find a temporary home from the hurry and worry, the drive and push of city business life.

The Polish Swan (*Cygnus immutabilis*) closely resembles the Mute. It is of nearly the same size, and is of a pure white color. It differs, however, from the preceding in having a differently formed cranium, and in the fact that the cygnets are white when hatched instead of gray.

Bewick's Swan (*Cygnus minor*) is also a pure white variety, but is considerably smaller than the preceding. It is shorter in the neck, although a graceful bird. In captivity it is said to be very timid and shy, and unable to breed.

The Black Swan (*Cygnus niger*). In that strange country of Australia where many of the most respectable white people have been convicts more or less criminal; where the native bushmen still cling to their mountain fastnesses, clothed in fur garments of exquisite softness and finish, their strong black hair standing out from their dark faces like a filmy *chevaux-de-frise*, and their dexterous hands spearing, with an unerring aim, the indolent fish that bask in the limpid and tepid waters of the streams; where the bright carpet snake winds his gay colors among the grass like an embroidered ribbon;

BLACK SWAN.

where the mahogany and sandal-wood trees stand in limitless forests, and the white-tuad tree rears its blanched form among them like a vegetable ghost; where in some yet undiscovered cavern of the wonderful Vasse country is hidden the treasure from whose golden stores are wrought the huge bracelets and anklets of virgin gold which deck, on festal occasions, the simple-hearted but powerful and discreet natives of that inaccessible region; where the kangaroo slips his little ones into his pocket and with surprising leaps carries them beyond reach of danger; where all is strange and unique and unlike all other countries—*there*, and there alone, is the original home of the *Black Swan*. On the Swan River, whose outlet is such a sheltered bay that no wind ruffles its surface, whose deep waters are so clear that the stones and white sands are distinctly seen at the bottom, swarm myriads of these graceful creatures, their gliding movements, alone, ruffling the glassy surface of the stream which reflects with startling fidelity the black glossy plumage, the serpent-like movement of the long slender neck, and the flashing eye that detects at any depth whatever dainty morsel it seeks.

THE WHISTLING SWAN (*Cygnus musicus*) is somewhat smaller than the Mute variety; its bill is of a yellow color and lacks the protuberance noticeable on other varieties; and its neck is considerably shorter and thicker. Its voice is its most remarkable characteristic, and has made it the favorite of naturalists and poets. Olaf says, "When a company of these birds passes through the air, their song is truly delightful, equal to the notes of a violin." Faber compared "their tuneful melancholy voices"

to the sound of "trumpets heard at a distance." This swan, indeed, has been called "The Trumpeter Swan." Another has said that "the voice of a Singing Swan has a more silvery tone than that of any other creature." Schilling describes their voices as sometimes like "the sound of a bell and sometimes that of some wind instrument; still it was not exactly like either of them, just as a living voice cannot be imitated by dead metal." It is said, whether it be an amiable fiction or a veritable fact, that the death song of the swan is the loudest, sweetest and most prolonged which it ever sings. The poets have made use of this statement to add a charm and meaning to their verses that we should otherwise miss. It will not pay to inquire too curiously into the fact; if it be false we do not wish to know it, and if it be true our enjoyment will be no greater than it now is. Shakespeare has been called "The Swan of Avon," and in "The Merchant of Venice" thus alludes to the death song of the bird,

> "Makes a swan-like end,
> Fading in music."

And Byron sang,

> "Place me on Sunium's marbled steep,
> Where nothing, save the waves and I,
> May hear our mutual murmurs sweep;
> There, swan-like, let me sing and die."

And Tennyson thus pictures the death of the swan:

> "The wild Swan's death-hymn took the soul
> Of that wild place with joy
> Hidden in sorrow; at first to the ear
> The warble was low, and full, and clear,
> And floating about the under sky,

Prevailing in weakness, the coronach stole,
Sometimes afar and sometimes anear;
But anon her awful jubilant voice,
With a music strange and manifold,
Flowed forth on a carol free and bold."

To the one who has seen these graceful water fowl, like living galleys, floating upon the surface of a limpid lake, it is not a matter of surprise that poets should be fascinated with them and that they should furnish the imagery of verse. No one is surprised that Milton should sing,

"The swan with arched neck
Between her white wings mantling, proudly rows
Her state with oary feet."

No one who is at all acquainted with that lover and interpreter of Nature, Wordsworth, is surprised that he should find the swan worthy a place in his contemplative verse, as in "Yarrow Unvisited" he exclaims,

"Let beeves and home-bred kine partake
The sweets of Burn-mill meadow;
The swan on still St. Mary's Lake
Float double, swan and shadow!"

But we need not cross the ocean to find a poet to describe the swan. Our own Percival in his poem "To Seneca Lake" thus sings:

"On thy fair bosom, silver lake,
The wild swan spreads his snowy sail,
And round his heart the ripples break,
As down he bears before the gale."

THE BLACK-NECKED SWAN (*Cygnus nigricollis*), also called the Chilian Swan, is a native of South America.

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